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17 **UNITED STATES DISTRICT COURT**  
18 **FOR THE NORTHERN DISTRICT OF CALIFORNIA**  
19 **SAN FRANCISCO DIVISION**

20 ----- X  
21 TARI LABS, LLC, : CASE NO.: 3:22-cv-07789-WHO  
22 Plaintiff, :  
23 -against- :  
24 LIGHTNING LABS, INC. :  
25 Defendant. :  
26 ----- X  
27  
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1  
2 I, Elizabeth Stark, hereby declare:

3 1. I am the co-founder and Chief Executive Officer at Lightning Labs, Inc.  
4 (“Lightning Labs”).

5 2. I am a resident of the State of New York, and I am over the age of eighteen.

6 3. I submit this supplemental declaration in connection with Lightning Labs’ sur-  
7 reply in further opposition to Plaintiff’s motion for a temporary restraining order based on  
8 my personal knowledge and a review of company records.

9 4. I have reviewed the “Taro Web Wallet [Testnet]” website available at  
10 <<https://testnet.tarowallet.net/walletapp/>>. A true and correct copy of that website is  
11 attached as **Exhibit A**.

12 5. Lightning Labs is not the developer of the “Taro Web Wallet.” According to the  
13 website, the developer’s name is Adam Ivansky; a Twitter post by Mr. Ivansky called “Taro  
14 Web Wallet” a “hobby project.” I understand Mr. Ivansky to be located in Canada.

15 6. Mr. Ivansky is one of the many members of the software development community  
16 who has participated in the open-source development of the TARO protocol. On Github,  
17 where his username is @snow884, Mr. Ivansky has posted occasionally in the “Issues” page  
18 for the TARO protocol code, identifying issues like “Currencies getting lost when minting  
19 multiple currencies with skip\_batch in one block”. *See*  
20 <https://github.com/lightninglabs/taro/issues/266>. Mr. Ivansky has also participated in the  
21 “LND Developer Community” Slack channel, which includes discussion among developers  
22 working on Bitcoin and Lightning about the TARO protocol.

23 7. Developer projects like the “Taro Web Wallet” frequently refer to the names of  
24 the developer-facing protocols they use so that other developers can understand the purpose  
25 and intended functionality of the project. Developers use terminology that ordinary  
26 consumers would not use or understand. For example, developers of early web-based email  
27 clients would have referred to them using technical language like “web based SMTP client”  
28 – describing for other developers how the product functions. *See, e.g.*, Ravindra Sadaphule,

1  
2 “A Web based SMTP client program” (Sept. 13, 2001),  
3

4 <https://www.codeproject.com/Articles/1373/A-Web-based-SMTP-client-program>. The final  
5 consumer-facing web-based email clients were given consumer-facing names like Gmail or  
Hotmail.

6 8. Both the URL for the “Taro Web Wallet” –

7 <<https://testnet.tarowallet.net/walletapp/>> – and the title on the homepage – “Taro Web  
8 Wallet [Testnet]” – prominently use the term “testnet,” because the TARO protocol is only  
9 operational on Bitcoin’s test network and not on the live Bitcoin blockchain (or mainnet).

10 9. As I explained in my earlier declaration, “testnet” is a simulated “mainnet” used  
11 by open-source software developers to help troubleshoot and test the functionality of their  
12 open-source projects. “Testnet” can be thought of as an experimental environment  
13 accessible primarily to developers, because the software is in an early or prototype stage, and  
14 requires specific expertise and technical know-how to use. Since TARO is only operational  
15 on testnet, there are no actual assets being issued on the Bitcoin blockchain using the TARO  
16 protocol that developers could reference (such as the name of a USD stablecoin), and so  
17 there is no actual end-user experience for developers to describe.

18 10. Prototypes like Mr. Ivansky’s “Taro Web Wallet” are typically personal projects  
19 of independent developers, commonly referred to as “hack projects” in the open-source  
20 community, because they lack formal structure and planning. Such projects initially use  
21 developer-facing names, and while most of them do not progress beyond that stage, they  
22 would be branded differently if they became commercial in the future. Mr. Ivansky referred  
23 to the site as a “hobby project” on his @ImCryptoAds Twitter account. *See* Tweet,  
24 @ImCryptoAds, Twitter (Jan. 26, 2023, 11:46 AM),  
25 <https://twitter.com/ImCryptoAds/status/1618651690105962496>. Mr. Ivansky’s post, as  
26 shown below, has three likes, and his Twitter account has 30 followers.



Mr. Ivansky also posted a link to the “Taro Web Wallet” site on “Stacker News,” writing “If you are experimenting with tarod on top of your lnd this could help you with testing.” The developer further asked for “feedback on how it works for you.” A true and correct copy of the Stacker News post titled “Web wallet for Taro protocol” is attached as **Exhibit B**.

Stacker News is a commonly used forum for Bitcoin, and especially Lightning, software developers or technical community members to speak with others in the Bitcoin and Lightning communities. Stacker News allows users to earn “sats” on Lightning through their posts and comments engaging with the Bitcoin developer community. Not only is Stacker News itself primarily a technical and developer-focused forum, not intended for ordinary consumers, the language of Mr. Ivansky’s post makes it very clear that he is seeking feedback from developers, with references to terms only developers would understand like “tarod” (the TARO protocol daemon) and “lnd” (the code base for a Lightning Network implementation).

11. I understand that Mr. Ivansky began asking questions about the technical features of the TARO protocol within the TARO Slack channel in or around late December 2022 and January 2023, as shown below.

1

2

# taro ✕ IRC: [##taro-dev](#) on Libera

281

3



Adam Ivansky 8:23 AM

Tuesday, January 3rd ✕

4

Hi,

5

is it possible to mint a taro asset and send it to myself ?

6

I tried doing it and I keep getting this error from tarocli:

7

```
[tarocli] unable to send assets: rpc error: code = Unknown desc = input commitment does not
contain asset_id=821d2b09c62ddadd1ccce28cb6845920b278c8ecdada39b3a8e27e096358679c: send: Input
does not contain requested asset
```

8

From Tarod:

9

```
...
2023-01-03 16:22:30.594 [WRN] FRTR: unable to advance state machine: input commitment does not
contain asset_id=821d2b09c62ddadd1ccce28cb6845920b278c8ecdada39b3a8e27e096358679c: send: Input
does not contain requested asset
2023-01-03 16:22:30.594 [ERR] RPCS: ↓ Latest messages Asset]: input commitment does not contain
asset_id=821d2b09c62ddadd1ccce28cb6845920b278c8ecdada39b3a8e27e096358679c: send: Input does not
```

10

12. In January 2023, Mr. Ivansky began soliciting developer feedback on his “Taro Web Wallet” prototype, as discussed in Paragraph 10 above. In the course of preparing this declaration, I spoke to two members of the Lightning Labs team who had a short technical call with Mr. Ivansky about his project in early February 2023, during which Mr. Ivansky explained that, while he has a separate full-time job, he put together an initial prototype of the “Taro Web Wallet” in his free time and was hoping to build an application that would help other developers troubleshoot as they worked on development of the TARO protocol.

11

13. Consistent with that conversation, based on my review of the website, the “Taro Web Wallet” appears to be an initial prototype of a wallet application that could be used to hold Bitcoin blockchain digital assets, including those created using the TARO protocol, for use by developers and technical community members who are working on the TARO protocol and related applications.

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15. The developer focus of the “Taro Web Wallet” site is evident from the website’s heavy use of technical jargon to explain its basic features. The homepage of the site states “Taro wallet gives users a web interface to interact [sic] with taro deamon running on Bitcoin testnet.” The site appears to contain a mis-spelling of “daemon”, which is a term used in software development for computer programs that run as background processes, as opposed to being directly used by the computer’s operator. The TARO code base on Github is also a daemon within the meaning of computer programming, and is described as “[a]

16

17

layer 1 daemon, for the Taro protocol specification.” While I fully understand what the TARO daemon is, I am confident that the general public or even a novice Bitcoin user would not comprehend that concept, let alone be able to explain it. Nor would any consumer-facing application refer to a “daemon” – the entire point of such software is that it runs in the background, out of sight of the end user.

15. Similarly, the “FAQ” page for the “Taro Web Wallet” includes a question “What is taro web wallet” and the answer “Taro web wallet is a website that allows you to securely [sic] access taro protocol without the need to operate Lnd, Tarod, Bitcoind or any other software required.” A true and correct copy of the “Taro Web Wallet” FAQ page is attached as **Exhibit C**.

16. “LND” is the developer-facing name of the Lightning Network Daemon. “TAROD” is the developer-facing name of the TARO protocol daemon. “BITCOIND” is a developer-facing name of the Bitcoin Core daemon. None of these are consumer-facing names. Including this type of technical information on a website clearly indicates to me that the site is intended only for sophisticated developers who would recognize the names of software daemon code bases.

17. The “Taro Web Wallet” website’s developer focus is also clear from the way it uses Taro in its name. It is routine practice in the open-source community to include the type of technology a particular prototype piece of software is built on. Here, Mr. Ivansky is clearly informing the other developers who encounter his project that he has developed a “wallet for the Taro protocol” that works “directly on the Bitcoin blockchain,” as evidenced by Mr. Ivansky’s screenshot of the wallet application that shows “Bitcoin Core” prices. *See Exhibit A.* This use of “Taro” in the developer-facing name of Mr. Ivansky’s project serves to help explain its functionality and purpose to other developers and technical community, by referencing the underlying technical protocol.

18. In the context of an open-source software development community like the one surrounding the TARO protocol, each stage of software development relies on public

1  
2 feedback from other developers. Those developers need to understand the technical  
3 protocols on which a piece of software operates, so they can understand the software's  
4 intended functionality. My previous declaration provides examples of this standard practice  
5 in the software industry by analogy to SMTP-based email clients. As I stated in my initial  
6 declaration, when ordinary consumers open up their Gmail, Yahoo, or Outlook email  
7 accounts, they are using what a developer might refer to as an SMTP mail client.

8 19. I have always been passionate about abstracting technical complexities away from  
9 end users. TARO is one of those complexities. I have repeatedly explained in public in  
10 discussing the TARO protocol that our expectation and intent is that ordinary consumers  
11 should not have to hear the name TARO or know that the protocol exists. It is not Lightning  
12 Labs' intention or expectation that technical details – like the name TARO protocol – would  
13 ever be exposed to ordinary consumers. My earlier declaration of February 27, 2023,  
14 describes just a handful of my many public statements on this point in paragraphs 20, 36, and  
15 80.

16 20. As I have previously stated, in the early stages of software development,  
17 independent third-party developers build tools that are equivalent to “hack projects,” and  
18 name them for other developers, not everyday consumers (because – like with “testnet”  
19 software, consumer applications are not yet possible). Like most software developers,  
20 Lightning Labs wants users of the applications developers build on our technology to have a  
21 simple and seamless experience – like sending a crypto asset worth \$1 to a friend. That asset  
22 might be a stablecoin created using the TARO protocol and sent over the Lightning Network  
23 on top of the Bitcoin blockchain – but ordinary consumers neither want nor need to know  
24 about four different pieces of software to send their \$1 asset. Eventually, the user experience  
25 that consumers will encounter would just be “send [USD stablecoin] with Lightning”  
26 without any reference to the TARO protocol – and later on consumers will likely not even  
27 know about Lightning at all.  
28

21. The TARO protocol name will be used by developers – like Mr. Ivansky – to explain to other developers and members of the technical community what their software does. Those developers will clearly understand what the TARO protocol for the Bitcoin blockchain is, and are sophisticated enough not to confuse the TARO protocol, or a “Taro Web Wallet” website, with the separate TARI project on a different blockchain, or the “Aurora” smartphone wallet.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed this 6th day of March 2023, in New York, NY.

Elizabeth Stark

Elizabeth Stark